Tennessee Department of Environment and Conservation,
Division of Water Resources
William R. Snodgrass-Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor, Nashville, TN 37243
(615) 532-0625

CONCENTRATED ANIMAL FEEDING OPERATION (CAFO)
STATE OPERATING PERMIT (SOP)
NOTICE OF INTENT (NOI)

Type of permit you are requesting: ☐ SOPCD0000 (designed to discharge) ☑ SOPC00000 (no discharge) ☐ Unknown, please advise

Application type: ☐ New Permit ☑ Permit Reissuance ☐ Permit Modification

If this NOI is submitted for Permit Modification or Reissuance provide the existing permit tracking number: TNA 00016

OPERATION IDENTIFICATION

Operation Name: Carmichael Farms	County: McMinn
Operation Location/ Physical Address: 390 C.R. 732 Calhoun TN 37309	Latitude: 35 18 87
	Longitude: -84 42.74
Name and distance to nearest receiving water(s):	
If any other State or Federal Water/Wastewater Permits have been obtained for this site, list those permit numbers:	

Animal Type: ☑ Poultry ☐ Swine ☐ Dairy ☐ Beef ☐ Other ____

Number of Animals: 35000 | Number of Barns: 4 | Name of Integrator: Pilgrims Pride

Type of Animal Waste Management: (check all that apply)
☐ Dry
☐ Liquid
☐ Liquid, Closed System (i.e. covered tank, under barn pit, etc.)

Attach the NMP ☐ NMP Attached | Attach the closure plan ☐ Closure Plan Attached | Attach a topographic map ☐ Map Attached

PERMITTEE IDENTIFICATION

Official Contact (applicant): Russ Carmichael	Title or Position: Owner			
Mailing Address: 263 C.R. 31	City: Riceville	State: TN	Zip: 37370	☐ Correspondence ☐ Invoice
Phone number(s): 423-336-8225	E-mail: russcarma@yahoo.com			
Optional Contact:	Title or Position:			
Address:	City:	State:	Zip:	☐ Correspondence ☐ Invoice
Phone number(s):	E-mail:			

APPLICATION CERTIFICATION AND SIGNATURE (must be signed in accordance with the requirements of Rule 0400-40-05-.14)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and title; print or type	Signature	Date
Russ Carmichael owner	Russ Carmichael	7/29/15

STATE USE ONLY

Received Date	Reviewer	EFO	T & E Aquatic Fauna	Tracking No.
	Impaired Receiving Stream		High Quality Water	NOC Date

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RDA 2366

clarations to Nutrient Management Plan:

y signature below, I affirm that I have read, understand, and will comply with the wing stipulations from Tennessee's CAFO regulations that apply to my CAFO ation:

All animals in confinement are prevented from coming in direct contact with waters of the state.
All chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants.
Pesticide-contaminated waters will be prevented from discharging into waste retention structures. Waste from pest control and from facilities used to manage potentially hazardous or toxic chemicals shall be handled and disposed of in a manner that will prevent pollutants from entering waste retention structures or waters of the state.
Chemicals, manure/litter, and process wastewater will be managed to prevent spills.
Spill clean-up plans will be developed and any equipment needed for spill clean-up will be available to facility personnel.
All sampling of soil and manure/litter is conducted according to protocols developed by UT Extension.
All records outlined in the permit that I am applying for will be maintained and available on-site.
Any confinement buildings, waste/wastewater handling or treatment systems, lagoons, holding ponds, and any other agricultural waste containment/treatment structures constructed or modified after April 13, 2006, are or will be located in accordance with NRCS Conservation Practice Standard 313.
A copy of the most recent Nutrient Management Plan will be kept as part of the farm records and will be maintained and implemented as written.
If applicable, all waste directed to under floor pits shall be composed entirely of wastewater (i.e. washwater and animal waste).
The Tennessee Department of Environment and Conservation Division of Water Resources will be notified of any significant wildlife mortalities near retention ponds or following any land application of animal wastes to fields.
All employees involved in work activities that relate to permit compliance will receive regular training on proper operation and maintenance (O&M) of the facility and waste disposal. Training shall include appropriate topics, such as land application of wastes, good housekeeping and material management practices, proper O&M of the facility, record keeping, and spill response and clean up. The periodic scheduled dates for such training shall be identified in the current Nutrient Management Plan.
There shall be no land application of nutrients within 24 hours of a precipitation event that may cause runoff. The operator shall not land apply nutrients to frozen, flooded, or saturated soils.

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Rust Carmichael 7/29/15

1. Farmer/ Producer Information

Is **ALL** litter removed from your farm (i.e. you not apply litter on your land)?*

*If the answer is "No," do not complete this form.

Yes	No
Please circle one	

First Name: Russ

Last Name: Carmichael

Farm/ Operation Name: Carmichael Poultry Farm

Tennessee County: McMinn

2. Volumes and Calculations

Poultry Type:

Broiler	Pullet	Layer
circle the type(s)		

Number of birds per house per grow-out: 8750

Number of Houses: 4

The amount of litter removed from a poultry house will vary depending on the litter moisture content, type and size of birds, and length of time birds are kept in house. Below is a Table summarized from the NRCS Poultry System Calculator V10.0 to assist in placing the litter amount produced per bird and assist in litter calculations.

Type of Bird	Market/ Mature Weight (lbs)	Avg. Weight of Litter Produced (lbs)/ Bird / Grow-Out
Broilers	small (3.8 - 5 .8)	2.1
	large (5.9 - 7+)	2.4
Layer	8 - 12	8
Pullet	5.5	3

Number of Grow-Outs / Year: 1

Average Weight of Litter Produced (lbs.)/ Bird / Grow-Out *(see Table at right or use your farm average if known)*: 8

*Take **Bolded** Letters in **Key** Column Above and Below to Assist in Calculating Values Below*

Number of Birds per Grow-Out = A x B = 35000

Number of Birds Example: If A = 22,000 and B= 2 and C= 5.5 then:
22,000 X 2 = 44,000 number of birds

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Number of Birds per Year = A x B x C = 35000

Number of Birds per Year Example: If A = 22,000 and B= 2 and C = 5.5 then:
22,000 x 2 x 5.5 =242,000 number of birds per year

Total Tons of Litter Produced per Year on the Farm = E x D / 2,000 = 140 x 4 = 560 T

Tons of Litter Produced Example: If E = 242,000 and D = 2.1 lbs. then:
242,000 x 2.1 lbs = 508,200 lbs. / 2,000 = 254 Tons

Nutrient Management Plan - Poultry

Exporting 100% of Litter Generated

2. Litter Handling and Storage

Litter Storage Capacity

Key			
	Storage Capacity within Poultry Houses (cu ft) 33,600 — No. of Houses 4		
	Length of poultry house (ft) X Width of poultry house (ft) X Height of litter (ft) = cubic feet of storage		
A	Total capacity within poultry barns (cu ft) X number of barns	134400 0	cu ft
	Storage Capacity within Litter Sheds (cu ft) 1600 — No. of Sheds 1		
	Length of litter shed (ft) X Width of litter shed (ft) X Height of litter (ft) = cubic feet of storage		
B	Total capacity within litter storage sheds (cu ft) X number of sheds	1600 0	cu ft
C	Storage Capacity of Other Storage Areas, if Applicable (cu ft)		
	Total Litter Storage Capacity Onsite (A + B +C)	35200 0	cu ft

Litter Contents from Manure Analysis (*as is basis*)*

** Manure analyses will be performed annually, and the results will be provided to all parties removing litter from my farm or operation.*

Laboratory Name	House	Date of Analysis	Total N	P_2O_5[a]	K_2O[b]	Units
						lbs./Ton
						lbs./Ton
						lbs./Ton
						lbs./Ton

Attach laboratory results. If a new facility, provide the source of the estimates used.

Notes:
N = Nitrogen P_2O_5 = Phosphorus Oxide K_2O = Potassium Oxide
[a] If Phosphorus is expressed in analyses as Phosphorus (P), simply multiple P lbs. X 2.3 to convert to P_2O_5.
[b] If Potassium is expressed in analyses as Potassium (K), simply multiple K lbs. X 1.2 to convert to K_2O.

Mortality Management

Dead birds will be disposed of according to State and local laws in a way that does not adversely affect groundwater or create public health concern. All mortalities will be disposed of using:

Composting	Incineration	Rendering*	Other: Landfill

please circle one

**If rendering, include the name and address of renderer.:*

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Closure Plan

In the event that poultry production at this location ceases, the following will bedone in 360 days:

- Any litter/ compost currently in storage at the time of closure will be removed and spread elsewhere according to my current NMP.
- All litter in houses will be removed and spread elsewhere according to my current NMP.
- The most current manure analysis performed by an accredited laboratory will

Exporting 100% of Litter Generated

Best Management Practices/Conservation Practices

st Management Practices/Conservation Practices for Production Areas

e following site-specific Best Management Practices (BMPs) and conservation practices will implemented to minimize environmental impacts in production areas (*please indicate all at apply*). The design and implementation of the BMPs will meet minimum standards set in e NRCS Field Office Practice Standard and/or the NRCS Animal Waste Handbook.

- ✓ • Buffer strips/filter strips
- ✓ • Silt fencing, riprap, stone gabions, or other structural erosion control
- ✓ • Maintain roads and heavy traffic areas
- ✓ • Proper manure/litter storage (i.e. under cover, prevents runoff)
- ✓ • Balanced diet/ration to prevent excessive nutrients in manure/litter
- ✓ • Regular inspections and maintenance of structures and equipment
- ✓ • General housekeeping (i.e. cleanup of waste/litter spills during transfers)
- _____ • Other (*please describe in detail below, or attach additional pages as needed*):

version of Clean Water

rtify that:

Uncontaminated stormwater runoff shall be diverted away from manure, litter, process wastewater, waste

Clean water will be diverted , as appropriate, from the production area.

Please provide a brief explanation/description of how clean water will be diverted below:

Grade work to divert water from all waste areas and guttering also used

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ility Maintenance

following maintenance activities will be performed at the facility (*please indicate all that apply*):

- ✓ • Regular inspections, maintenance, and repair of structures, equipment, and vehicles
- ✓ • Replacement and upgrade of structures, equipment, and vehicles as needed
- ✓ • Regular training of facility personnel in maintenance/housekeeping techniques
- ✓ • Maintenance of vegetation (i.e. mowing, weeding, seeding)
- • Other (*please describe in detail below, or attach additional pages as needed*):

4. Checklist

Use this sheet to help ensure that you have included all required items in order for your CAFO application and Nutrient Management Plan to be approved. Please attach the following items to this worksheet to complete you CAFO permit application.

Forms

_____ • Signed revised Notice of Intent Form

_____ • Signed Declarations to Nutrient Management Plan

Maps

✓ • Full color map of Farm/ Operation Showing the Location of Barns/ Houses, Compost Bins, Litter Storage Bins, Nearby Roads, Streams, Wetlands, etc.

✓ • Full color topographical map of the Farm/ Operation showing property lines and location of poultry houses.

Manure Analysis

✓ • Annual Manure Analysis Performed by an Accredited Laboratory

Mail complete packet to:

Heidi McIntyre-Wilkinson, Environmental Specialist
Ellington Agricultural Center - Holeman Building
Nonpoint Source and CAFO Programs
P.O. Box 40627
Nashville, TN 37204

The completed packet can also be scanned and sent via electronic mail to:
Heidi.McIntyre-Wilkinson@tn.gov

5. Certification

As the owner/operator, I am certifying that I am the decision-maker for this operation. All information included in my CAFO permit application packet is complete and accurate to the best of my knowledge. I understand that I am responsible for the implementation of the NMP and for maintaining all necessary records for the operation.

Signature: Russ Carmichael Date: 7/29/15

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Nutrient Management Plan - Poultry

Keep For Your Records

Names of Persons / Companies Removing Poultry Litter from

Russ Carmichael

Name of Farm / Operation Where Litter Originates

Mike Brown

Name: [signature]

Address: 960 Water St Bradley Co

County

Phone: 593. 5821

Estimated Tons of Litter:

Date	Tons	Date	Tons	Date	Tons	Date	Tons

Name:

Address:

County

Phone:

Estimated Tons of Litter:

Date	Tons	Date	Tons	Date	Tons	Date	Tons

Name:

Address:

County

Phone:

Estimated Tons of Litter:

Date	Tons	Date	Tons	Date	Tons	Date	Tons

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Name:

Address:

County

Phone:

Estimated Tons of Litter:

Date	Tons	Date	Tons	Date	Tons	Date	Tons

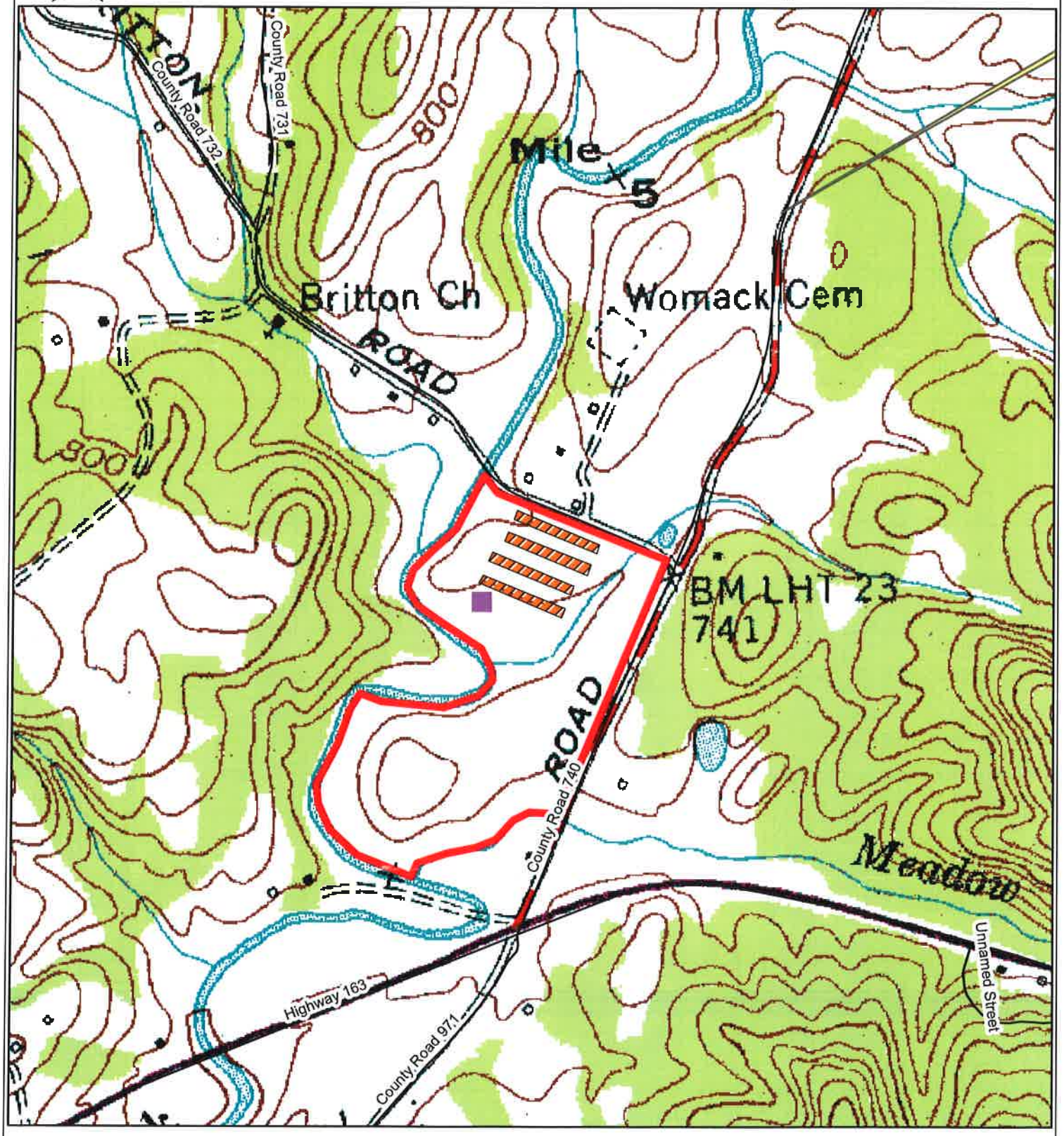
N

Russ rmichael Poulty Operation Topo ap

Field Office: ATHENS SERVICE CENTER
Customer(s): RUSS CARMICHAEL

#20 Control

Agency: USDA/NRCS



Legend

- Litter Storage Building
- Layer Houses
- Farm Boundaries
- Roads

660 0 660 1,320 1,980 Feet

Image: Topo Maps

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F[illegible]s Carmichael Poulty Operation

Field Office: ATHENS SERVICE CENTER
Customer(s): RUSS CARMICHAEL

H 2O control

Agency: USDA/NRCS

Legend

- Farm Boundaries
- Roads
- Water
- Streams

500 0 500 1,000 1,500 Feet

Image: Topo Maps

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Manure Analysis Report

CUMBERLAND VALLEY ANALYTICAL SERVICES

Quantitative & Qualitative Analysis
PO Box 669 Maugansville, Maryland 21767-0669
Phone: 301-790-1980 Fax:301-790-1981
Email: mail@foragelab.com web-site: www.foragelab.com

Analysis Report For:	Sample Information:
VALLEY FARMERS COOP/ATTN: JOAN RICK BARHAM 920 NORTH CONGRESS PARKWAY ATHENS TN 37303	Farmname: CARMICHAEL, RUSS Description: CHICKEN LITTER Report Date: 07/27/2015 Sample ID: 13684811

Analysis Report
Results Reported on "As Received/Wet" Sample

Test	Percent	Lbs/1000 Gal	Lbs/Ton
Solids:	33.14		
Moisture:	66.86		
Total Nitrogen:	0.887	83.66	17.74
Ammonia Nitrogen:	0.438	41.35	8.77
P2O5:	1.718	162.01	34.35
K2O:	1.491	140.61	29.81
Ca:			
Mg:			
Na:			

Test	mg/kg	Lbs/1000 Gal	Lbs/Ton
Cu:			
Mn:			
Fe:			
Zn:			

Other Tests		
Density:	9.43 Lbs/gallon	70.55 lbs/Cu Ft
C to N ratio:		
Volatile % of Solids:		
Water Soluble P (g/kg dry matter):		
P Source Coefficient:		
pH:		

Form Man_Report Ver 10.703

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